



Considerations on the Romanian International Trade with Agri-Food Products

Cezar Ionut BICHESCU*, Silviu STANCIU**

ARTICLE INFO

Article history:
Accepted June 2018
Available online August 2018
JEL Classification
L66, Q11, Q18

Keywords:
Food, Production, Market, Trade,
Romania

ABSTRACT

The national food market depends on imports, although Romania has important natural resources favorable to agricultural production, which, properly exploited, could cover the domestic demand and would allow farmers to obtain some significant export benefits. Although the Romanian production of cereals has registered a significant increase over the last period, excessive exports of raw materials, overlaid on processed food imports, have led to a permanent increase in Romania's balance deficit during recent years. The paper proposes considerations over the domestic food production from the perspective of foreign trade with food, highlighting the main factors that have helped to cover the domestic demand from imports. The main imbalances encountered at national level are those from the fruit and vegetables, coffee and cocoa sectors, milk and dairy products, namely meat and meat products. The problems of the Romanian agricultural sector (excessive fragmentation of agricultural holdings, lack of qualified staff, reduced investments in the purchase and modernization of equipments, lack of a functional irrigation sector), correlated with a decrease competitiveness of the local food industry, will further lead to the increase in Romania's dependence on imports. Applying certain viable strategies to support the agricultural sector, combined with measures to encourage the raw materials processing at national level and to increase indigenous food consumption, can lead to a decrease in imports and balancing the national trade balance on agri-food products. The perspectives of the national food sector are not encouraging, given the lack of effective national measures and the low reactivity of the domestic business environment.

© 2018 EAI. All rights reserved.

1. Introduction

Romania has significant natural resources favorable to agri-food production, which could ensure the national food security. In recent years, Romania has experienced a permanent deficit of the trade balance with agri-food goods, which has increased the national indebtedness and favored the dependence of the domestic food market on imports. The prognoses regarding the evolution of the Romanian agri-food sector are pessimistic, and for long being possible an increasing dependence of the national agri-food market on foreign capital and on imports of finished products. Romania is increasingly being transformed into a source of raw materials and retail market for food produced elsewhere in Europe, often at a low quality level. Foreign capital is predominant in food trade, gaining an increasing significance in the manufacturing industry, and about 30% of quality agricultural lands from Romania are controlled by foreign investors.

2. Literature review

Within an analysis carried out on the national sector of cereals, Stanciu (2017) points out that the lack of storage/silting facilities for cereals forces the Romanian farmers to sell the field crops, favoring the speculative transactions on the grain market in Romania.

Dincă et al (2017) performs an analysis of the domestic agricultural sector from the perspective of the production of seed material for the cereals production. The study found that local wheat varieties are better suited to local conditions, offering good production yields under the conditions of a climate change and the lack of a national irrigation system.

Iancu and Stanciu (2017), have researched the restoration of land property titles in Romania after the change of the political regime. The lack of a clear vision and of long-term strategies have led to an excessive fragmentation of agricultural lands, with a negative impact on the productivity of the national agricultural sector.

*, ** Dunarea de Jos University of Galati, Romania. Email addresses: sstanciu@ugal.ro, cbichescu@ugal.ro

Stanciu (2014a) conducted an analysis of the presence of foreign capital in agri-food production from Romania, highlighting its predominance in food trade, insertion in food production and an increasing appetite for the purchase of agricultural lands, mainly for speculative purposes.

The analysis of the beef market from Romania (Stanciu, 2014b) showed that the largest livestock farms belong to the Dutch or Syrian capital and the companies that manage the businesses export the production achieved mainly to the countries of origin, to the detriment of the domestic food market.

Stanciu, (2014c), in his researches on the Romanian pork market has highlighted the decrease in pig's stocks, the alarming decrease in livestock and the dependence of Romanian breeders on the import of piglets, mainly from the Netherlands. Romania does not have proper slaughterhouses and specialized pig fattening units, the animals being exported live to specialized markets from Italy and Spain. Romania has enough raw milk to cover the need of the manufacturing industry. The milk produced by national farms corresponds under physical-chemical and sensory terms, but harvesting conditions, often carried out under precarious conditions of hygiene, lead to a poor microbiological quality for processors and to the import of raw materials, mainly from Hungary and Serbia (Stanciu, 2014d).

Gavrilescu and Voinicaș (2014) analyse the Romanian food trade between 2003 and 2010, highlighting exports of raw materials and missing some market niches for domestic producers.

3. Material and methods

Information on the Romanian agri-food production has been collected from the databases of the National Institute of Statistics NIS or Eurostat. The National Bank of Romania or NIS reports were useful for highlighting the sensitive points of the national agri-food sector, being completed, where needed, with interpretations of some internationally recognized financial analysts. The bibliographic documentation included Romanian Statistical Yearbooks (2017,2016), government reports, scientific articles available on the Web of Knowledge Clarivate Analytics, Scopus, or Google Scholar. The data collected was processed, analysed and represented graphically. The results achieved were correlated with other relevant scientific information from the literature.

4. General aspects regarding the agri-food sector of Romania

According to statistical data presented by the National Institute of Statistics (NIS) (2018), the Romanian foreign trade balance during recent years has recorded an estimated deficit between EUR 5.9 and EUR 21.7 billion (Figure 1). The Romanian economy does not produce enough goods and services to cover the demand in the economy, which has led to a significant increase in imports. In 2017 Romania's exports climbed 9.1% and imports advanced by 12.3%, resulting into an increase in the trade deficit by 30% as compared to 2016, reaching EUR 12.96 billion (balance trade deficit was calculated as the difference between FOB exports and CIF imports, which also includes insurance costs).

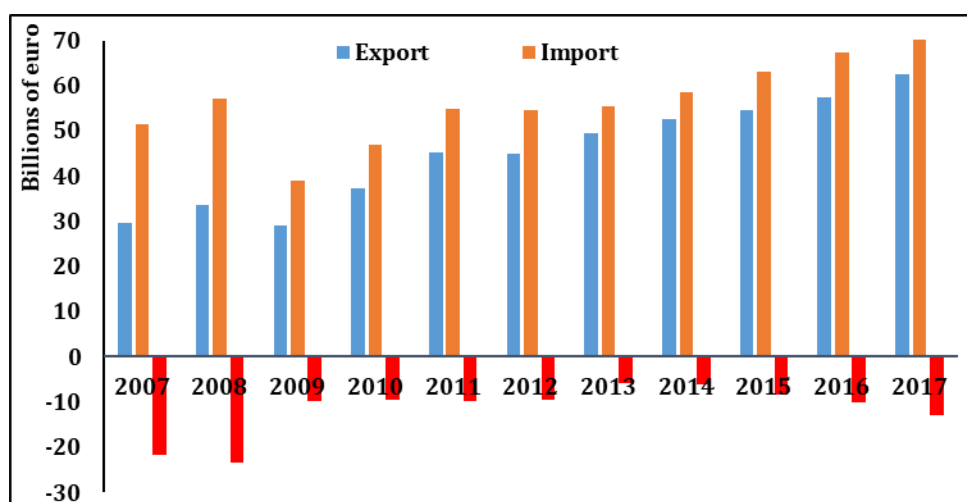


Figure 1. Romania's commercial balance
Source Author, by using NIS (2018)

According to Bobocea (2008), which is analyzing Romania's post-accession foreign trade, integration has led to a significant trade deficit, with each euro exported Romania recording a deficit of 72 eurocents. The differences accentuated in 2008, after which a considerable decrease of it was recorded in the period 2008-2013, reaching in 2013 up to 25% of the value registered in 2008. The period 2014-2017 led again to an increase in the trade imbalance of Romania, which in 2017 has doubled compared to the minimum value registered in 2013 during post-accession period.

By sections, according to SITC Rev. 4, the most significant deficits in foreign trade were recorded last year for chemicals and related products (-7.28 billion of euros), manufactured goods classified chiefly by material (-4.7 billion of euros) and mineral fuels, lubricants and related materials (-2.6 billion of euros).

The Romanian agri-food sector has overall recorded a foreign trade balance deficit of 1.367 billion of euros, due to imports of food and live animals, which exceeded exports by 1.857 billion of euros. Surpluses were recorded in the section crude materials, except for fuels (+276 million of euros), beverages and tobacco (+191 millions of euros), and animal and vegetable oils, fats and waxes (+23 million of euros) but which could not cover the major differences due mainly to the import of food (Fig 2).

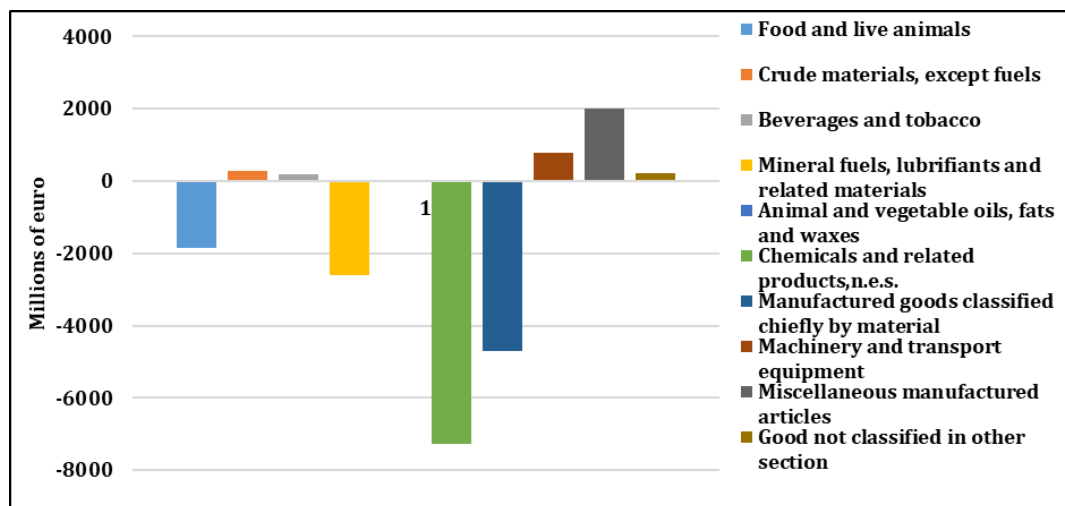


Figure 2. Deficit in Romania's commercial balances on main sections, according to SITC Rev.4
Source Author, by using NIS (2018)

The national agricultural and food sector has recorded a decrease in import dependence on sections raw materials, beverages and tobacco, namely animal and vegetable fats, in which the trade balance was balanced, but the deficit in foreign food trade was constantly between 800 and 2000 millions of euros (Table 1). The section crude materials, except fuels only partially covers agri-food products, including extractive and forestry products.

Table 1. Differences between exports (FOB) and imports (CIF) of Romania, by sections (millions of euro)

Sections (by SITC Rev.4)	2007	2008	2009	2010	2011	2012	2013	2015	2015	2016	2017
Food and live animals	-2.005	-2.140	-1.716	-1.105	-963	-871	-289	-400	-1.021	-1.527	-1.857
Crude materials (except fuels)	246	349	741	1015	1305	775	1135	960	490	350	276
Beverages and tobacco	-117	-46	106	168	138	114	174	364	488	295	191
Animal and vegetable oils, fats and waxes	-82	-135	-81	-74	-21	-71	23	34	30	4	23

Source Author, by using NIS (2018)

The deficit of international food trade has been steadily increasing during recent years, reaching up to 1.5 billion euros in 2016 and 1.8 billion euros in 2017, currently covering more than a quarter of the total deficit of goods registered by Romania's foreign trade. Recent advances in domestic food consumption, which benefited from both general incentives (such as revenue increases) and specific incentives (extension of the decreased VAT rate to all food products), mirrored to a relatively small extent in the activity of the food industry, so that the surplus of demand was mostly covered by imports (Figure 3).

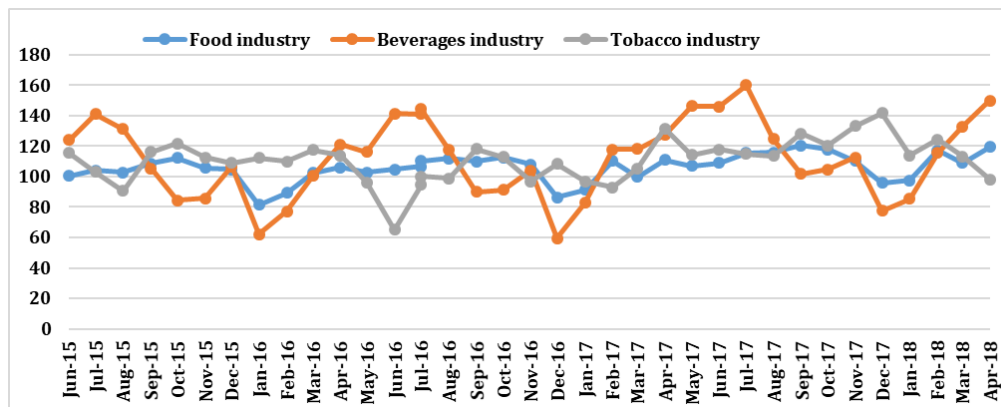


Figure 3. Monthly industrial production indices - unadjusted series (base year 2015)
Source Author, by using NIS (2018)

According to the opinion of the National Bank of Romania (2018), this evolution has brought to the forefront the situation from the domestic food sector, field which other competitiveness indicators (export market share, trade advantage, productivity) reveal to be one of the least performance at European level, despite Romania's high agricultural potential. In some instances of local processors' takeover by foreign companies, the cost optimization criteria has tended to favor the relocation of production for some varieties (Stanciu, 2014). The inability of local industry to cover the domestic demand has been accompanied by a low export presence compared to other countries in the region. The increase in the significance of modern trade also weighed in the profits of the profile imports, as the marketing strategies of some operators emphasized on own branded products, most of the times purchased from outside.

Although the Romanian agriculture has an agricultural area ranked sixth at the European level, it faces a very low yield of agricultural production (PricewaterhouseCoopers, 2017). The share of agriculture in Romania's Gross Domestic Product has declined steadily during the last 20 years, reaching 22.6% in 1993 to below 5% of GDP in 2015, amid the structural transformation of the Romanian economy from a predominantly industrial- agrarian economy, to a service-based one. The share of the service sector at national level has increased from about 25% of GDP in 1990 to around 60% in 2015.

Approximately 8.2 million hectares (representing 60% of the national agricultural area) are arable lands, and about 5.4 million hectares of this surface are used for cereals crops, mainly wheat and maize. Romania is one of the top 10 grain exporters in the world, ranking 9th in the export of wheat and the 6th position in the export of corn. Although most of the cultivated farmland is used for cereals, they generated in 2015 only 14.2 billion euros, representing less than 25% of the value of total agricultural production.

The report of the National Bank of Romania (NBR) (2018a) showed that the national agro-food market experienced a deepening of the trade imbalance during recent years, reaching 20 billion euros in 2017, representing more than 25% of the goods deficit of that year.

Expansion of imports of agri-food products has been favoured by exogenous factors (such as the local climate profile improper for the cultivation of certain varieties of fruits and vegetables) or by the decrease in agri-food prices on the European market due to the additional offer generated by Russia's embargo on the EU. The competitiveness of the local food industry has steadily deteriorated, reflecting the alert rhythm of increasing unit costs with labour force, but above all the persistent deficiencies across the entire production and sales chain that have limited the potential production expansion. These deficiencies have as starting point the excessive fragmentation of agricultural holdings, a major obstacle to capital accumulation and, consequently, to the improvement of product yields and quality, while at the level of the upper links of the chain there was a lack of qualified staff, the improper technological endowment, but also the lack of certain long-term business visions. The main imbalances identified by the National Bank of Romania's report on NBR inflation (2018b) concern four categories of products: vegetables and fruits, coffee and cocoa, milk and dairy products, and meat and meat products.

Although there are situations (exotic fruits, coffee, cocoa) where the contributions to the trade deficit can be regarded as natural, explainable due to the climate conditions of our country, in most cases the deficits hide competitiveness issues of a structural nature that affect the chain production, especially upstream. In case of fruits and vegetables group (which explains one third of the trade deficit generated by food products), it is surprising the dominant contribution of products with a local tradition such as apples, grapes, tomatoes, potatoes. By ignoring the influence of the seasonal factor on all these crops, the production during the last 10-20 years has stagnated or even declined, phenomenon associated, first of all, with the absence of gains in the yields, to which is added the general restriction of the cultivated areas, including the greenhouse area. For example, however unexpected in terms of local potential and tradition can be, the significant sources of the trade deficit associated with fruits include apples, given that Romania held in 2016 more than 10 percent of the total area

cultivated with apple trees at European level, but only 3.6 percent of total production. The difference between the local and the average yields at the community level is even more emphasized in case of tomatoes, where Romania holds 9.1% of the cultivated area and only 2.4% of the total production. In fact, the production of vegetables and fruits is generally far below potential, the poor investment activity of farmers being negatively reflected on several levels: mechanization of works, irrigations, land treatment with fertilizers, construction of greenhouses, reconversion of lands, replacement of aging fruit and wine plantations with new plantations with performant varieties, insufficient storage spaces, etc. Consequently, it is often more advantageous for business operators to supply themselves from foreign suppliers capable of providing stable flows under proper quantitative and qualitative parameters.

As regards food of animal origin, mainly represented by the categories "meat and meat products" and "milk and dairy products" (with contributions to the total deficit of 13 percent and 11 percent respectively), it is noted in addition to the excessive fragmentation of livestock farms, the continuous decrease of herds (Figure 4). Except for sheep where there has been a steady increase in export demand or goats with subsidized livestock breeding programs (amid the decrease in the average annual consumption from 2.6 kg / inhabitant to 2.3 kg / inhabitant), butcher livestock farms have fallen permanently after community accession.

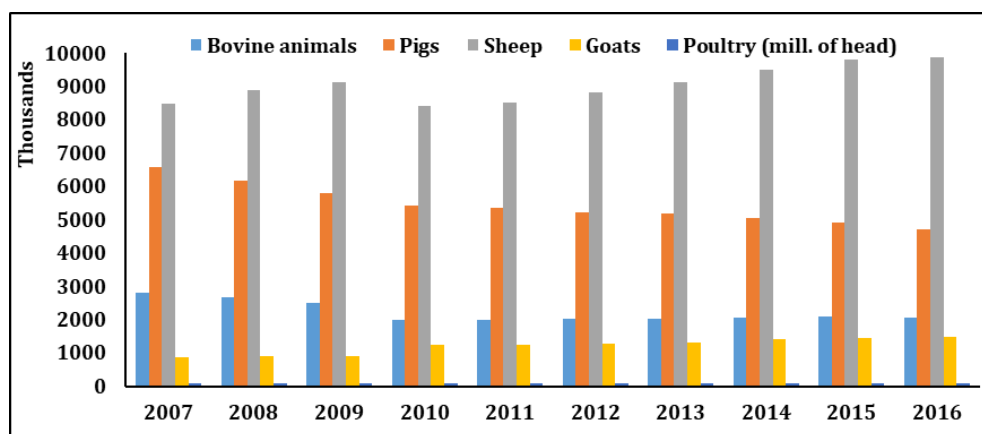


Figure 4. Evolution of animal stocks
Source: Author, by using NIS (2018)

The poultry breeding sector is the only one that has recorded a real growth, amid the increase in poultry consumption, managing to balance the trade balance of foreign trade. The situation influences the investment capacity of farmers, hence of the yields achieved, the sectoral production being, furthermore, affected by insufficient spaces for collection, storage and transport (Stanciu, 2017). Thus, the inability to deliver goods to the upper links of the production chain according to their quantitative and qualitative requirements characterizes both the vegetal segment and the zootechnical field. Cattle farming is the most exposed to the fragmentation phenomenon, the individual farm holdings concentrating 90 percent of the dairy cattle cows (Stanciu, 2014a), the farmers managing to provide to processors about 25 percent of the local milk production (percentage below the European average) and the profile industry companies resort to completion imports. The milk processors segment is highly concentrated, the most important companies being international. They carry out operations in several states throughout the entire production chain, and the decision on what and where to produce is based solely on the criteria of cost optimization (Stanciu, 2014b). The expansion of international networks on Romania's territory thus targets not only the sales segment, dominated by the large business operators, but also, to a certain extent, the category of processors, while at the base of the production chain the phenomenon is still at an early stage. Although the presence of these entities represents an opportunity for the domestic agri-food sector, given the related benefits (stable demand, access to know-how), the structural deficiencies highlighted, as well as the current general poor condition of the productive capital (in terms of technology) erodes the attractiveness of the local economy for new investments. Thus, low competitiveness has resulted in the choice of many companies (traders and processors) to deliver to the final consumer products produced abroad, such imports basically explaining the deterioration of the trade balance in the food segment during recent years, as the progress achieved by exports, although exist, are still very timid. With regard to meat production and derived products, although the relevant livestock segments in terms of the consumption structure (pig and poultry breeding) are affected by a lower level of fragmentation (the livestock share from individual holdings decreasing to about 60%), the problems identified are broadly similar to those specific to the milk production sector, so that processors also resort to purchases of raw materials in addition to those procured from domestic sources (out of total meat imports, those performed by profile industrial companies account for about 40 percent). Although local products are somewhat better represented in stores, during the last period, compared to dairy products, particularly in case of meat products, the fragmentation of the

processing sector (especially the pork meat segment) limits for many processors the ability to access to modern stores, which affects the associated trade deficit.

In terms of trade partners, a significant proportion of Romania's food sector deficit is related to relations with other countries of the group of new EU members, namely Hungary and Poland, countries which have among the most favorable foreign positions of the European Union on this field of activity. The signal given by the size of the negative balance of the balance is also strengthened by other competitiveness indicators, such as export market share and revealed trade advantage (an indicator of the extent to which the specialization of exports on a given category of products dominates the significance of imports from the same category). Thus, Romania holds a modest competitive position at European level (a situation prevailing in the four categories of products analysed), much lower than that held by emerging economies with which the trade deficit is associated (Table 2). However, there is observed a slight improvement during the last years at the aggregate level, but generated almost exclusively by the meat and meat products segment, a contribution having the gradual relaxation, starting from 2012, of sanitary veterinary restrictions on pork meat exports starting from 2006, following the identification of outbreaks of swine fever.

Table 2. Comparative competitiveness of the Romanian food industry (compared to Poland and Hungary)

PositionCategory of products	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Total food	i1						I	II														I	II	I	II			
	i2					I			II						I+II					I		II						
	i3			I		II														I	II		I+II					
Meat	i1						I								II								I		II	I	II	
	i2									I					II		I+II				I				II			
	i3					I									II								I+II			I+II		
Milk	i1				I	II						I+II											II	I				
	i2		I	II					I		II												I+II					
	i3				I+II				I				II								II	I						
Vegetables	i1										II				I										II	I	I+II	
	i2								I		II													I+II				
	i3										II						I					II	I	I	II			
Fruits	i1												II						I							I+II	I+II	
	i2								I+II								I+II						I+II					
	i3											II					I					I+II				I+II		

where

--	--	--	--

 Romania Poland Hungary Source Taken from NBR (2018b)

Although Romania has a high agricultural potential compared to most European countries, its capitalization remains among the lowest, the yields achieved by local farmers (calculated as a ratio between the production achieved and the cultivated areas / livestock slaughtered) being among the lowest from EU, under those of Poland and Hungary. An explanation is given by the very low level of direct investments oriented towards the cultivation of vegetables and fruits, respectively the breeding of animals, in contrast, for example, with the inflows that targeted crops of cereals and oil plants, fields which, moreover, have a positive contribution to the foreign trade balance. Although receiving increased capital flows, the food industry is still characterized by a productivity level well below the European average, as a result of the low level of technology of the existing production capacities, so that the option for imports or the relocation of some fields of activity in other European countries appears to be often more cost-effective. The expansion of domestic consumption demand has been unusually accompanied by an under-utilization of production capacities. According to the NBR's conclusion (2018b), the deterioration of the trade balance on the food segment largely reflects the structural weaknesses, with a common point in the excessive fragmentation of agricultural holdings. In the absence of some associations at the level of farmers it is difficult to conceive an investment reversion, a sine qua non condition for improving the yields and the quality of the products achieved. Fragmentation of agricultural property leads to a reduced productivity of the sector. Thus, about 75% of Romanian farms have less than 2 hectares and the share of farms under 10 hectares is 98% of the total number and 39% of the total agricultural area used (figure 5). A direct effect of the fragmentation of agricultural property is also the penultimate position occupied at the European Union level in terms of capitalization of agricultural holdings.

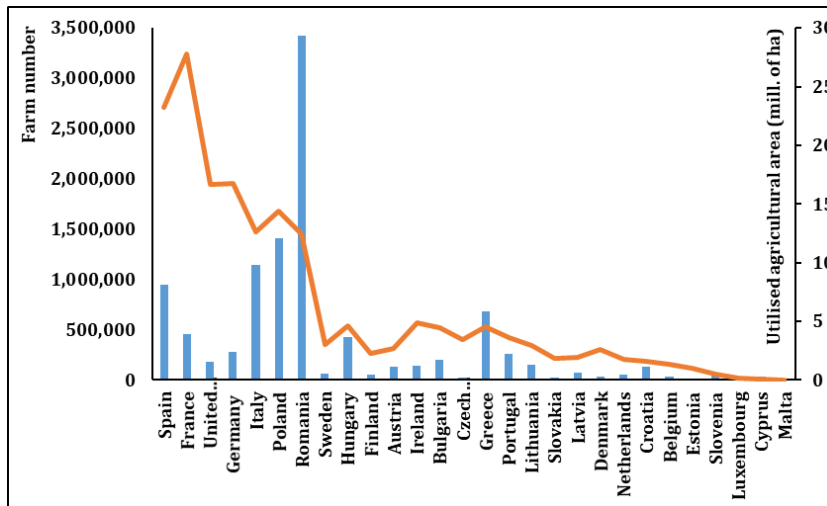


Figure 4. Farms and agricultural area by Member States
Source: Author, by using Eurostat (2018)

Approximately 25% of Romania's active population is working in Romanian agriculture, and the gross added value per person employed in agriculture is low. Thus, in 2013, this represented only 18% of the European Union average, namely 7% of the one generated in France, or 9% of the one generated in Spain. The labor force in Romanian agriculture is mostly non-employed, about 85% of the total labor force in agriculture working on its own subsistence agricultural holdings. By comparison, the average share of non-employed workers in the EU agriculture sector is 72%, in some countries even much lower (Spain 50%, France 63.1%, Germany 55.8%). The labor force in the Romanian agricultural sector shows an improper level of training compared to the one of other European states. According to European Commission data, quoted by Deacu (2017), 96.4% of Romanian farmers said they had acquired their knowledge in the agricultural field strictly on the basis of practical experience, compared to 70.9% of farmers in the European Union. In Romania, there is no clearly defined professional status of the farmer, aspect which has strong implications for taxation, social security and health care. Technological facilities of indigenous agricultural holdings are rudimentary, under 2% of holdings in Romania holding at least one tractor (figure 5).

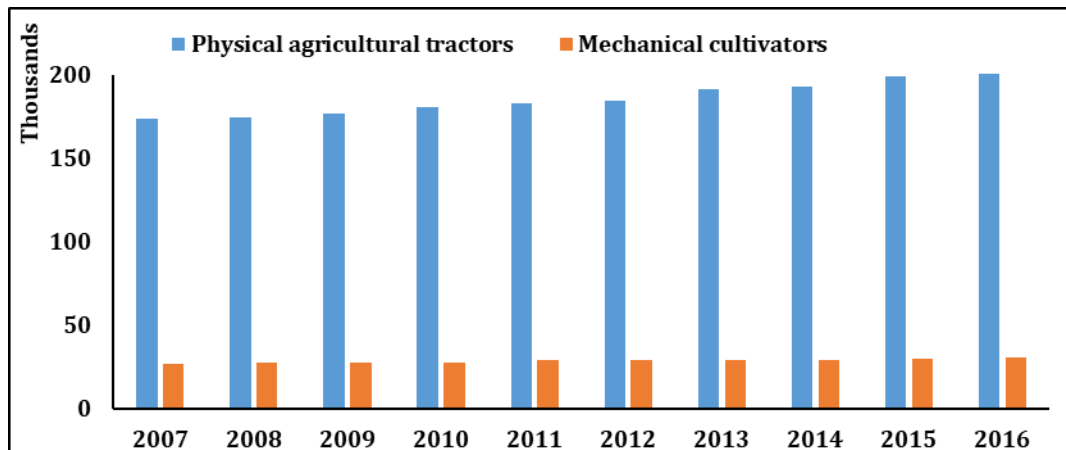


Figure 5. Park of tractors and of main agricultural machinery
Source Author, by using NIS (2018)

Lack of access to the necessary infrastructure, such as farmers' access to liquid fuel, favours the poor endowment of the sector with the necessary tools (Mediafax, 2017). Member States, including Hungary and Bulgaria, have a 100% coverage of agricultural areas with liquid fuel infrastructure, while in Romania coverage is only 56%. The agricultural sector has the second largest share of total tax evasion in Romania, of about 1.7 billion of euros (9% of the total tax evasion).

Additional obstacles to the widespread enforcement of a competitive business model that would allow integration into international networks (not only locally, but also through foreign supplies) along the production chain are represented by the shortage of staff with a proper qualification as well as by the lack of a medium and long-term business vision, boosted by the small size of the average processor. The issues

highlighted by the NBR Report are confirmed by the PricewaterhouseCoopers study (2017), quoted by Deacu (2017), which shows that the main limiting factors of the yield of agricultural production in Romania are represented by the fragmentation of agricultural holdings, the low level of training of Romanian farmers, low level of capitalization and tax evasion. Thus, the constant loss of market share of indigenous products on the domestic market suggests, beyond the structural problems highlighted, that local business operators only relate to their own activity, considering acceptable increases below the market average without being concerned about valuing the full potential which would allow them to strengthen their relative position towards competitors.

5. Conclusions

The study highlighted the dependence of the national food market on imports, an increasing deficit in Romania's trade balance and the lack of viable measures in behalf of the authorities for the recovery of the agri-food sector. Romania has valuable natural resources, tradition or local varieties of plants adapted to local conditions, but the local agri-food production sectors are uncompetitive and imports are necessary in order to meet the needs of the domestic market. The main imbalances in Romanian food trade are present in the groups vegetables-fruits, coffee and cocoa, milk-dairy products, and meat and meat products. Although the decrease in the VAT rate on food has favored domestic consumption, the food processing industry from Romania has not been able to support the demand, so the past few years have practically led to a tripling of the balance trade deficit in food trade. Exports of unprocessed agricultural raw materials only partially cover this deficit, the imports of finished goods being clearly higher in value terms. The lack of investments in processing, the absence of some coherent strategies and policies in the national agricultural sector are factors that will further the decline of national food production.

References

1. Banca Națională a României (2018b), Raport asupra inflației Februarie 2018, Available at: http://www.bnr.ro/Publicatii-periodice-204.aspx#3922_panelBox_TitleLabel.
2. Banca Națională a României, (2018a), Raport anual 2017, Available at: http://www.bnr.ro/Publicatii-periodice-204.aspx#3922_panelBox_TitleLabel,
3. Bobocea, M., (2008), Integrarea a adus cel mai mare deficit comercial din istorie: la fiecare euro exportat, Romania a avut un deficit de 72 de eurocenti, Ziarul Financiar (07.02.2008), (online), Available at: <http://www.zf.ro/analiza/integrarea-a-adus-cel-mai-mare-deficit-comercial-din-istorie-la-fiecare-euro-exportat-romania-a-avut-un-deficit-de-72-de-eurocenti-3105474>.
4. Deacu, E., (2017), Studiu: România are potențial agricol ridicat, dar îi lipsește productivitatea, Adevărul (07.03.2017), (online), Available at: https://adevarul.ro/economie/afaceri/studiu-romania-potential-agricol-ridicat-lipseste-productivitatea-1_58bee2ed5ab6550cb81c08e7/index.html.
5. Dinca, C., Băcanu (Serban), C., Ion, I.M., Stanciu, S., (2017) Romanian certified seed production. Evolution and characteristics in the international context, Proceedings of the 30th International-Business-Information-Management-Association Conference: Vision 2020: Sustainable Economic Development, Innovation Management, and Global Growth, (Spain, Madrid, Nov. 08-09, 2017), Ed. Soliman, K.S., Vols I-IV, pp. 3198-3207.
6. Eurostat, (2018), Farm indicators by agricultural area, type of farm, standard output, legal form and NUTS 2 regions, Available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ext_tec05&lang=en.
7. Gavrilesco, C., Voicilaș, D.M., (2014), Competitiveness of the romanian agri-food trade and the new agricultural policies, in Kowalski, A., Wigier, M., Bulkovska, M. (editors), The new EU agricultural policy - continuation or revolution?", Institute of Agricultural and Food Economics Research Institute, Warsaw, Poland, No. 99.1: 95-106.
8. Iancu, T., Stanciu, S., (2017), The Rural Area, Land Fund and Restitution of Agricultural Land Property In Romania After 1990, Proceedings of the 30th International-Business-Information-Management-Association Conference: Vision 2020: Sustainable Economic Development, Innovation Management, and Global Growth, (Spain, Madrid, Nov. 08-09, 2017), Ed.Sliman, K.S., Vols I-IV, pp. 2224-2235.
9. Mediafax, (2017), Fermierii lucrează a 6-a suprafață agricolă din UE, dar productivitatea este scăzută arată un studiu, Departamentul Economic (online) (8 mar 2017), Available at: <http://www.mediafax.ro/economic/fermierii-lucreaza-a-6-a-suprafata-agricola-din-ue-dar-productivitatea-este-scazuta-arata-un-studiu-16185427>.
10. PricewaterhouseCoopers Management Consultants SRL, (2017), Potențialul dezvoltării sectorului agricol din România, (online), Available at: https://www.juridice.ro/wp-content/uploads/2017/03/Raport_PwC-agricultura.pdf.
11. Stanciu, S., (2014c), The Romanian swine market in the EU context, Annals of "Dunarea de Jos" University of Galati Fascicle I. Economics and Applied Informatics, years XX - no. 3/2014, 87-96.
12. Stanciu, S., (2014a), The Romanian food sector attractiveness for foreign investment, SEA - Practical Application of Science, 3(5), pp. 603-610.
13. Stanciu, S., (2014b), Romanian beef & veal meat market analysis, SEA-Practical Application of Science, 2(4), pp. 381-388.
14. Stanciu, S., (2014d), Romanian milk market analysis, SEA-Practical Application of Science, 2(4), pp. 373-380.
15. Stanciu, S., (2017), An Analysis of the Romanian Storage Capacity for Seed Production, Proceedings of The 29th IBIMA Conference: Education Excellence and Innovation Management through Vision 2020: From Regional Development Sustainability to Global (Austria, Vienna, 3-4 May 2017), ed. Soliman, K.S., pp. 1200-1207.